

Am



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/991,109      | 11/26/2001  | Stefan Dyckerhoff    | 0023.0042           | 3431             |

44987 7590 02/18/2005

HARRITY & SNYDER, LLP  
11240 WAPLES MILL ROAD  
SUITE 300  
FAIRFAX, VA 22030

EXAMINER

MIRZA, ADNAN M

ART UNIT PAPER NUMBER

2145

DATE MAILED: 02/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                                      |  |  |
|------------------------------|--------------------------------------|--|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>09/991,109 | <b>Applicant(s)</b><br>DYCKERHOFF ET AL. |  |
|                              | <b>Examiner</b><br>Adnan M Mirza     | <b>Art Unit</b><br>2145                  |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 26 November 2001.  
2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-57 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-57 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 26 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 1-57 are rejected under 35 U.S.C. 102(e) as being unpatentable by Kovacevic et al (U.S. 6,674,805).

As per claims 1,21,40,48,57 Kovacevic disclosed a system for processing data received in a plurality of incoming streams of variable speeds, comprising: a memory configured to store data; an interface controller comprising a first arbitration element and configured to store the data in the memory using the first arbitration element (col. 19, lines 21-29); and a dispatch unit

Art Unit: 2145

comprising a second arbitration element and configured to read the data from the memory using the second arbitration element (col. 19, lines 47-61).

3. As per claims 2,22 Kovacevic disclosed wherein the memory includes: a plurality of memory buckets corresponding to the streams (col. 16, lines 1-21).

4. As per claims 3 Kovacevic disclosed wherein the memory buckets have a fixed size (col. 20, lines 16-23).

5. As per claims 4,23 Kovacevic disclosed wherein the first arbitration element is configured to store a plurality of entries, each of the entries including a stream number that identifies one of the streams (col. 16, lines 1-11).

6. As per claims 5,24 Kovacevic disclosed wherein the number of entries in the first arbitration element for a particular one of the streams is based on a speed of the stream (col. 31, lines 10-21).

7. As per claims 6 Kovacevic disclosed wherein the interface controller is configured to: read one of the stream numbers from the first arbitration element, providing a list of potential proxy candidates; providing a search mechanism to add more candidates to said list of potential proxy candidates; and receiving a selection of one or more of said potential proxy candidates, including a selection of said first entity (col. 25, lines 31-47).

8. As per claims 7,26 Kovacevic disclosed wherein the interface controller is further configured to send a stream identifier with the data transferred to the memory (col. 36, lines 15-27).

9. As per claims 8,27 Kovacevic disclosed wherein the memory is further configured to sort the data from the interface controller based on the stream identifier (col. 36, lines 15-27).

10. As per claims 9,28 Kovacevic disclosed wherein the first and second arbitration elements are synchronized (col. 8, lines 32-43).

11. As per claims 10,29 Kovacevic disclosed wherein: the second arbitration element is configured to store a plurality of entries, each of the entries including a stream number that identifies one of the streams (col. 16, lines 1-11).

12. As per claims 11,30 Kovacevic disclosed wherein the number of entries in the second arbitration element for a particular one of the streams is based on a speed of the stream (col. 31, lines 10-21).

13. As per claims 12,31 Kovacevic disclosed wherein the dispatch unit is configured to: read one of the stream numbers from the second arbitration element, read data corresponding to the identified stream from the memory, and output the data for processing (col. 25, lines 31-47).

14. As per claims 13,32 Kovacevic disclosed further comprising: flow control logic configured to initiate flow control on the storing of data in the memory (col. 36, lines 15-27).
15. As per claims 14,36,42,50 Kovacevic disclosed wherein the flow control includes dropping data from the stream (col. 16, lines 43-57).
16. As per claims 15,37,43,51 Kovacevic disclosed wherein the flow control includes causing the interface controller to stop storing data from the stream in the memory (col. 16, lines 42-58).
17. As per claims 16,33,47 Kovacevic disclosed wherein the flow control logic includes: a buffer configured to temporarily store the data from the interface controller in a plurality of entries, a counter configured to determine a number of entries in the buffer corresponding to each of the streams, and comparator configured to determine whether to initiate the flow control for each of the streams based on the determined number of entries for the stream (col. 15, lines 45-62).
18. As per claims 17,34,41,49 Kovacevic disclosed wherein the comparator is configured to compare the determined number of entries for a stream to a watermark and initiate the flow control for the stream when the determined number of entries exceeds the watermark (col. 19, lines 47-61).

Art Unit: 2145

19. As per claims 18,35,44,52 wherein the comparator is further configured to compare the determined number of entries for the stream to a second watermark and drop data from the stream when the determined number of entries exceeds the second watermark (col. 19, lines 47-61).

20. As per claims 19,38,45 Kovacevic disclosed wherein each of the streams has an associated watermark for use in performing flow control on the storing of data in the memory (col. 19, lines 47-61).

21. As per claims 20,39,46 Kovacevic disclosed wherein each of the streams has two associated watermarks for use in performing flow control on the storing of data in the memory (col. 19, lines 47-61).

22. As per claim 25 Kovacevic disclosed wherein the storing includes: reading one of the stream numbers from the first arbitration element, gathering data corresponding to the identified stream, and transferring the data to the memory (col. 36, lines 15-27).

23. As per claims 55,56 Kovacevic disclosed a system for performing flow control on data in a plurality of incoming streams of variable speeds, comprising: a buffer configured to temporarily store data from a plurality of streams of variable speeds in a plurality of entries; a counter configured to determine a number of entries in the buffer corresponding to each of the streams (col. 15, lines 45-62); and a comparator configured to: compare the determined number

Art Unit: 2145

of entries for a stream to first and second watermarks, initiate flow control for the stream when the determined number of entries exceeds the first watermark, and drop data from the stream when the determined number of entries exceeds the second watermark (col. 19, lines 47-61).

### *Conclusion*

24. Any inquiry concerning this communication or earlier communication from the examiner should be directed to Adnan Mirza whose telephone number is (571)-272-3885.

25. The examiner can normally be reached on Monday to Friday during normal business hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Valencia Martin Wallace can be reached on (571)-272-6159. The fax for this group is (703)-746-7239.

26. The fax phone numbers for the organization where this application or proceeding is assigned are as follows:

(703)-746-7239 (For Status Inquiries, Informal or Draft Communications, please label "PROPOSED" or "DRAFT");

(703)-746-7239 (For Official Communications Intended for entry, please mark "EXPEDITED PROCEDURE"),

(703)-746-7238 (For After Final Communications).



Art Unit: 2145

27. Any Inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)-305-3900.

Any response to a final action should be mailed to:

BOX AF

Commissioner of Patents and Trademarks Washington, D.C.20231

Or faxed to:

Hand-delivered responses should be brought to 4<sup>th</sup> Floor Receptionist, Crystal Park II,  
2021 Crystal Drive, Arlington, VA 22202.

*Am*

Adnan Mirza

Examiner

*Jason Carmona*  
*Primary Examiner*  
*Art Unit 2145*